ASSIGNMENT 13

Textbook Assignment: "Support Systems and Miscellaneous Equipment," chapter 15, pages 15-4 through 15-33.

13-1. What substance may be added to the distilled water to prevent freezing in severe conditions?

1. Ethylene glycol
2. Silicone
3. Alcohol
4. Detergent

13-2. What device removes all debris from seawater cooling water?

1. Demineralizer
2. Duplex strainer
3. Heat exchanger
4. Overboard discharge

13-3. What device regulates the proper amount of seawater to each cooling branch in a seawater cooling system?

1. Seawater regulator
2. Discharge regulator
3. Orifice plate
4. Heat exchanger tubes

13–4. Who should be able to rig an emergency cooling hose through the ship's firemain?

1. The EMO
2. All ETs
3. Both 1 and 2 above
4. ETs only

13–5. What valve regulates the flow and temperature of the distilled water in a chilled water cooling system?

1. Temperature regulating valve
2. Chilled water regulating valve
3. Closed loop regulating valve
4. Heat exchanger regulating valve

13-6. What portion(s) of the chilled water system transfer(s) heat from the electronic equipment being cooled to the primary system?

1. Main heat exchanger
2. Secondary heat exchanger
3. Secondary cooling system
4. All of the above

13-7. What type(s) of liquid cooling systems does the Navy use?

1. Type I
2. Type II
3. Type III
4. All of the above

13-8. Which type of system can be operated satisfactorily with seawater temperatures as high as 95°F?

1. Type I
2. Type II
3. Type III
4. Type IV

13-9. Which type(s) of systems are used in installations that cannot accept a distilled water temperature higher than 90°F?

1. Type I
2. Type II
3. Type III
4. All of the above

13-10. Which type of system involves the tightest control of temperatures?

1. Type I
2. Type II
3. Type III
4. Type IV

13-11. In a Type I cooling system, how is makeup water added if a leak develops in the secondary cooling system?

1. Through the demineralize
2. Through the heat exchanger
3. Through the expansion tank
4. Through the overboard discharge

13-12. What device removes dissolved metals, CO_2, and oxygen from the distilled water?

1. Submicron filter
2. Demineralizer
3. Heat exchanger
4. Expansion tank

13-13. What action(s) must be taken if the heat exchanger fails?

1. The cooling system must be shut down
2. The equipment must be shut down
3. The standby heat exchanger must be put into service
4. All of the above

13-14. What determines whether the expansion tank is gravity or pressurized?

1. Pressure
2. Location
3. Water salinity
4. Water purity

13-15. What type of temperature regulating valve is used when seawater is the primary cooling medium in the heat exchanger?

1. one–way
2. Two-way
3. Three–way
4. Four-way

13-16. What type of temperature regulating valve is used when chilled water is the primary cooling medium?

1. One-way
2. Two-way
3. Three-way
4. Four-way

13-17. Which of the following switches is used to ensure adequate movement of distilled water through electronic equipment?

1. Low-flow switch
2. High-flow switch
3. Seawater switch
4. Fire main switch

13-18. What does the presence of oxygen do to liquid coolant systems?

1. Prevents rust
2. Acts as a preservative
3. Causes scale to form
4. All of the above

13-19. What type of alarm(s) does the cooling system alarm switchboard provide?

1. Visual
2. Display
3. Audible
4. All of the above

13-20. What is the primary factor in extending the life of cooling system components and the reliability of the total system?

1. Scheduling preventive and corrective maintenance
2. Ensuring proper installation
3. Periodically testing the purity of the cooling medium
4. Using maintenance placards

13–21. Which of the following is the most important item associated with salt water cooling systems?

1. Low-flow indicator alarm
2. High-flow indicator alarm
3. Sacrificial zinc
4. Salinity indicator

13-22. Which of the following problems concerning sacrificial zincs can occur very easily?

1. Improper installation
2. Having them lagged over
3. Damage to them
4. All if the above

13-23. Which of the following actions should you take to locate all sacrificial zincs?

1. Conduct a thorough inspection
2. Consult the EGL
3. Ask the leading ET
4. All of the above

13-24. What is electronic dry air used for in high powered radars?

1. To increase the dielectric constant
2. To prevent arcing
3. To prevent corrosion
4. All of the above

13–25. What dry air pressure range should you expect to find in a hiqh-powered radar waveguide?

1. 1-8 psig
2. 10-20 psig
3. 20-35 psig
4. 35-50 psig

13-26. What dry air pressure range should you expect to find in a low–powered radar waveguide?

1. 1-8 psig
2. 10-20 psig
3. 20-35 psig
4. 35-50 psig

13-27. Which of the following equipment is used to produce dry air?

1. Central dry air system
2. Individual air dehydrator-s
3. Both 1 and 2 above
4. Dry air canisters

13-28. What moisture removal system does a Type I dehydrator use?

1. Refrigerant
2. Dessicant
3. Refrigeration and dessicant
4. Nitrogen

13-29. What moisture removal system does a Type II dehydrator use?

1. Refrigerant
2. Dessicant
3. Refrigerant and dessicant
4. Nitrogen

13-30. For which of the following purposes is nitrogen used aboard ships?

1. To purge dry air systems
2. As a primary form of pressurization
3. To eliminate moisture
4. All of the above

13-31. Which of the following actions should a technician take to get power if a power distribution source is not available to energize his equipment?

1. Reroute the power from another source
2. Use alternate power
3. Contact the ship’s electricians
4. All of the above

13-32. From which of the following power sources can you obtain power for vital electronic equipment during a power failure?

1. ABTs
2. Alternate feeders
3. Emergency feeders
4. All of the above

13-33. How is power distributed to major shipboard defense systems?

1. Directly from the ship's service switchboards
2. From RBTs
3. From MBTs
4. From power distribution panels

13-34. Which of the following kind(s) of voltage/power feed(s) through the IC switchboard?

1. Interior communications power
2. Relay supply voltages
3. Synchro excitation/400 hZ power
4. All of the above

13-35. What should be the first consideration during a casualty procedure?

1. Whether or not proper source demand factors are present
2. Whether or not proper tech manuals are being used
3. Whether or not proper test equipment is being used

13-36. Who is responsible for dry air systems from the inlet coupling of the air control panel to the electronic equipment being served?

1. The appropriate combat systems rating
2. Engineers
3. Civilian contractors
4. TYCOM

13-37. Who is responsible for cooling water system PMS starting at the saltwater strainer and including all of the secondary loop?

1. The appropriate combat systems rating
2. Engineers
3. Civilian contractors
4. TYCOM

13-38. Who is responsible for operating and maintaining combat systems support systems and for performing casualty control work on all such systems?

1. The appropriate combat systems rating
2. Engineers
3. Civilian contractors
4. TYCOM

13-39. What purpose(s) does CCTV serve?

1. Entertainment
2. Remote observance of ship's operations
3. Rapid exchange of vital information
4. All of the above

13–40. Which of the following functions is/are provided by electronic warfare?

1. ESM
2. ECM
3. ECCM
4. All of the above

13-41. Which of the following functions is defined as the use of passive equipment to intercept enemy emissions?

1. ESM
2. ECM
3. ECCM
4. EW

13-42. Which of the following functions is defined as the use of active electronic equipment to jam enemy transmissions?

1. ESM
2. ECM
3. ECCM
4. EWC

13-43. What is the fundamental component of any ESM system?

1. Intercept receiver
2. Transmitter
3. Display scope
4. IFF mode

13-44. What component/function prevents ESM interference from ownship radars?

1. Display function
2. Blanking pretrigger
3. IFF mode
4. Transmitter

13-45. What action is defined as the deliberate radiation of electro–magnetic energy to deny enemy use of sensors and control systems?

1. IFF
2. Blanking
3. Jamming
4. ESM

13–46. What function is defined as the deliberate interference in a manner intended to mislead an enemy’s sensors?

1. ESM
2. ECM
3. ECCM
4. DECM

13–47. What function is defined as measures taken to ensure effective use of electromagnetic sensors?

1. ESM
2. ECM
3. ECCM
4. DECM

13–48. What type of equipment is designed to create, control, or detect IR radiations?

1. Infrared
2. Image intensifying
3. Low level TV
4. Radar

13-49. What is the maximum usable range of IR equipment?

1. 1 to 3 miles
2. 3 to 6.5 miles
3. 6.5 to 10 miles
4. 10 to 15 miles

13-50. In what process are changes in temperature displayed visually in the viewfinder as changes in color?

1. IR sensing
2. Far IR
3. Thermal Imaging
4. Radar conversion

13-51. If repair is required on any night vision device, what instruction(s) should you give the technician?

1. Give it a cursory inspection
2. Do not break any factory seals
3. Both 1 and 2 above
4. Open it and determine the extent of necessary repairs

13-52. Possession of night vision equipment requires adequate safeguards for both accountability and physical security.

1. True
2. False